Draft ACTION PLAN A For consideration by EBMWG at August 10, 2004 meeting

Overview

This group chose to describe two alternatives. The first is the idea of Absolute Wilderness, which defines core wilderness values with which the second alternative, Urban Wilderness, can be compared. The group recognizes that Urban Wilderness is the more likely outcome.

Addressing the Issues - Strategies For This Action Plan

STRATEGY EBM.1 - ABSOLUTE WILDERNESS SCENARIO

In order to manage the Stellwagen Bank National Marine Sanctuary in a true wilderness state, all disruptive activities must cease. The SBNMS would become a totally protected, non-extractive reserve. In addition, the borders of the Sanctuary would have to be extended so as to encompass Jeffreys Ledge and adjacent areas of high topographic relief, such as "the Fingers." This would yield two important benefits. First, areas rich in both herring (to the north) and sand lance (mostly Stellwagen Bank) would be protected, thus providing insurance against low-abundance years for any one of these primary forage species. Second, a crucial feeding area for the north Atlantic right whale would be protected. In addition, the core protected area encompassing the two banks should be surrounded by an easement of additional grounds in which activities that severely disrupt habitat and the distribution and abundance of wildlife are curtailed.

BENEFITS

- Whalewatching, wildlife watching, tourism (including SCUBA)
- Existence value
- Transit value
- Reduced uncertainty through provision of reference habitats for scientific research necessary for resource management in rest of GOM
- Spillover and stock enhancement value of protected brood stock and individuals

COSTS

- No fishing
- Zero ballast water exchange
- Requires the elimination or destruction of all artifacts, such as shipwrecks and archaeological sites

Strategy Performance measure:

[Insert Descriptive Text Here]

STRATEGY EBM.2 - URBAN WILDERNESS SCENARIO

It is virtually impossible to manage the SBNMS as a true wilderness, because many of the organisms that move through the sanctuary are severely impacted outside of its borders. In addition, SBNMS waters are under burgeoning pressure as the regional human population

increases in numbers and wealth, thus elevating the demand for use of coastal waters for commercial and recreational fishing, boating, and wildlife watching. In other words, humans are part of the ecosystem. In recognition of these considerations, an alternative paradigm is put forward of an "urban wilderness", in which the goal is the defense and restoration of such wilderness values as can be achieved in the context of proximity to the heavily settled watersheds and heavily impacted waters of the Gulf of Maine. The urban wilderness scenario employs zoning and impact restrictions to preserve a substantial portion of the ecological services that wilderness would provide.

The primary mechanism for achieving and maintaining wilderness values is the close monitoring of the ecosystem to allow for more informed and confident decisions in response to changes in human impacts and system state. The core of the program is a well-designed network of research areas and monitoring activities. These provide the data-stream required to manage human activities within the Sanctuary in an adaptive manner, and to thus maintain the viability of human activity in a self-supporting system. The difference between the "urban wilderness" and "compromise" scenarios is the explicit goal of promoting wilderness attributes within the Sanctuary; however, the "compromise" scenario should incorporate "urban wilderness" objectives while allowing extractive use through careful zoning. The urban wilderness scenario differs from "sustainable use" in system attributes such as the size-frequency distribution of organisms, the ecological resiliency of the Sanctuary, and the emphasis on maximizing standing biomass and species diversity rather than gross rates of biomass production.

The return of natural ecological processes to a Sanctuary that is nonetheless subject to some level of extraction and modification, can be effected by safeguarding certain key attributes of the system. In other words, these are non-negotiable requirements of an urban wilderness approach.

BENEFITS

- Whalewatching, wildlife watching, tourism (including SCUBA)
- Existence value
- Transit value
- Reduced uncertainty through provision of reference habitats for scientific research necessary for resource management in rest of GOM
- Spillover and stock enhancement value of protected brood stock and individuals
- Limited fishing
- Encourage the growth of small-scale, low-impact fisheries consistent with growth of population in the urban centers and demand for recreation.

COSTS

- Encourage the growth of small-scale, low-impact fisheries consistent with growth of population in the urban centers and demand for recreation. This is a cost relative to an Absolute Wilderness model, but a benefit from the Urban Wilderness perspective of the public commons, artisinal industries, including fisheries, etc.
- Loss of some existence value.
- Loss of much of the reference value of absolute wilderness (the establishment of a baseline against which the effects of human activities can be measured). This can be

addressed by reserving a portion of the SBNMS as a core region of absolute wilderness.

The report of the US Commission on Ocean Policy "highlights the fact that fishing is a privilege, not a right". It reflects the notion that "the dedicated privilege being granted is access to the fish, rather than the fish themselves." In the "urban wilderness" scenario, this privilege is granted, but in balance to other privileges that people seek from Sanctuary waters, including the privilege of viewing a wild ocean and the wildlife that it would contain but for its removal by people with contrary values.

Activities designated for this strategy include:

- 2.a Close fisheries on pelagic forage species: Atlantic and river herrings, and the two species of sand lance. [Insert Descriptive Text Here]
- **2.b Change boundaries to encompass local ecosystem dynamics.** Specifically, expand the sanctuary borders to the north to include extensive areas of bottom that support the herring (to the north) and the sand lances (to the south).
- 2.c Zone refugia for large brood fish as off-limits to all extraction (could allow catch-and-release fishing however). [Insert Descriptive Text Here]
- 2.d Conduct research to determine necessary areal zones to protect, and to monitor the efficacy of these closures. [Insert Descriptive Text Here]
- 2.e Fishing would be allowed but on the basis of ecosystem parameters, not just the usual demographic criteria (i.e., not MSY). [Insert Descriptive Text Here]
- **2.f Fishing must be restricted to low-impact technologies, within delimited zones, the goal being sustainability within the Sanctuary.** Encourage public sector access to facilitate a general shift from industrial to artisanal/small scale/recreational fisheries. This allows the greatest benefit for the greatest number of people, and is sustainable over time.
- 2.g Restructure shipping lanes to reduce wildlife and endangered species impacts; pursue through direct benefits to Homeland Security. [Insert Descriptive Text Here]
- 2.h Speed limit on vessels through the Sanctuary, below 13 knots (the mortality threshold for ship-whale collisions). [Insert Descriptive Text Here]
- **2.i** Fully enforce the Clean Air and Clean Water acts to reduce watershed inputs to the Sanctuary. Watershed management to minimize turbidity and diminish coastal runoff, including, but not limited to, nutrient plumes from rivers. Such management strategies may include, for example, requiring forested easements along all watersheds.
- 2.j Zero ballast water exchange in the Sanctuary to reduce invasive species. [Insert Descriptive Text Here]

- 2.k Every effort must be made to minimize harmful interactions with all marine mammals including NA right whales, and to minimize degradation of the trophic system that supports them (i.e., copepods and forage fish). [Insert Descriptive Text Here]
- 2.l Some areas must be well selected for full protection to protect biodiversity, and provide untouched reference areas for adaptive management. [Insert Descriptive Text Here]

2.m Any use or crossing of the Sanctuary for cables, pipelines, or conduits must be subject to review and assessed for costs to cover continuing impact monitoring for the lifetime of the easement. [Insert Descriptive Text Here]

Strategy Performance measure:

[Insert Measures Here]